

## The behaviors of singular solutions of some partial differential equations in the complex domain

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Let  $L(u) = 0$  be a partial differential equation in a neighborhood of  $z = 0$  in  $\mathbf{C}^{d+1}$ ,  $z = (z_0, z_1, \dots, z_d)$ . Suppose that  $u(z)$  solves  $L(u) = 0$ , which is not necessarily holomorphic on  $K = \{z_0 = 0\}$ . The aim of the lecture is to study the behaviors of a singular solution  $u(z)$  near  $K$ . We give asymptotic terms of  $u(z)$  as  $z_0$  tends to 0 for some linear or nonlinear partial differential equations.